

REMARKS

In the Office Action, the Examiner rejected claims 1-24. No claims have been added, canceled, or amended by this paper. As such claims 1-24 are pending in the present application and are believed to be in condition for allowance. In view of the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Rejection under 35 U.S.C. § 102(e)

In the Office Action, the Examiner rejected claims 1, 2, 4, 6, 8, and 21-24 under 35 U.S.C. § 102(e) as anticipated by Arndt (U.S. Patent No. 6,877,158 B1, hereafter referred to as “the Arndt reference”). Applicants respectfully traverse this rejection.

Legal Precedent

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Accordingly, Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Deficiencies of the Rejection

Applicants respectfully assert that several features of claims 1, 2, 4, 6, 8, and 21-24 are not disclosed by the Arndt reference. For example, independent claim 1 recites “loading a desired operating system *on each set of the plurality of resource sets*.”

(Emphasis added). Independent claim 21 recites “an operating system loader module configured to load a desired operating system *on each of the multiple resource sets.*” (Emphasis added).

In sharp contrast, the Arndt reference discloses a system in which operating systems (“OSs”) are not loaded *onto* a resource set, but must rather request permission from a hypervisor 210 to establish a connection to a resource. *See* Arndt, col. 5, lines 1-29; *see also* Fig. 3. More specifically, as stated in the Arndt reference, “[w]hen one of the OSs 202-208 needs access to a specific resource, the particular one of the OSs 202-208 must establish a virtual to real remapping for the input/output resource.” *Id.* To perform this mapping, the OSs 202-208 make a request to the hypervisor 210, which then checks the status of the resource and performs the mapping. *See id.* In other words, the OSs 202-208 disclosed in the Arndt reference are not loaded *onto* a set of resources, but rather, must *request* access to resources *after* the OSs 202-208 have been loaded. *See id.* These resource requests inevitably consume time and computer power, thereby reducing the efficiency and speed of the computer system disclosed in the Arndt reference. For at least these reasons among others, Applicants respectfully assert that independent claims 1 and 21 are not anticipated by the Arndt reference. As such, Applicants respectfully request withdrawal of the pending Section 102 rejection and allowance of independent claims 1 and 21, as well as the claims that depend therefrom.

In addition, Applicants also note that independent claim 1 recites “allocating resources from one or more of the resource tables to a plurality of resource sets *prior to loading a desired O/S layer.*” (Emphasis added). In contrast, the Arndt reference discloses a system where virtual addresses are mapped to physical addresses *after the operating system has been loaded.* *See* Arndt, col. 6, lines 20-34. In particular, the virtual addresses within each of the page frame tables 320-350 are mapped to one of the physical resources 360 *after the OSs 302-308 have been loaded.* For this additional reason, it is clear that the Arndt reference does not anticipate the above-recited features of independent claim 1 and the claims that depend therefrom.

Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Arndt reference in view of Smith et al. (U.S. Patent No. 6,833,792 B1, hereafter referred to as “the Smith reference”); claims 5 and 7 under 35 U.S.C. § 103(a) as being unpatentable over the Arndt reference in view of Kleinsorge et al. (U.S. Patent No. 6,247,109 B1, hereafter referred to as “the Kleinsorge reference”); claims 9-20 under 35 U.S.C. § 103(a) as being unpatentable over the Arndt reference in view of Gurumoorthy et al. (U.S. Patent No. 6,829,725 B2, hereafter referred to as “the Gurumoorthy reference”); claims 13 and 19 under 35 U.S.C. § 103(a) as being unpatentable over the Arndt reference in view of the Gurumoorthy reference and the Kleinsorge reference; and claims 17 and 18 under 35 U.S.C. § 103(a) as being unpatentable over the Arndt reference in view of the Gurumoorthy reference and Smith et al. (U.S. Patent No. 6,833,792 B1, hereafter referred to as “the Smith reference”). Applicants respectfully traverse these rejections.

Legal Precedent

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). The Examiner must provide *objective evidence*, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002).

Claims 9-20

Applicants respectfully assert that several features of independent claims 9 and 14 are not disclosed or suggested by either the Arndt reference or the Gurumoorthy reference. For example, independent claim 9 recites “loading the plurality of independent operating system, at least one O/S being loaded *on each resource set* of the multiple subsets.” (Emphasis added). Independent claim 14 recites “an operating system loader module configured to load a desired operating system *on each of the multiple resource sets.*” (Emphasis added).

In contrast, as described above in regards to independent claims 1 and 21, the Arndt reference discloses a system where physical resources 360 are mapped to one or more of the OSs 302-208 by the hypervisor 310 *after the OSs 302-308 have been loaded.* For this reason, Applicants respectfully assert that the Arndt reference does not disclose the above-recited features of claims 9 and 14. Moreover, the Gurumoorthy reference does not cure the deficiencies in the Arndt reference. In particular, the Gurumoorthy reference merely discloses “a system and method of launching an operating system on a processing system ... [using a] firmware interface.” Gurumoorthy Abstract, lines 1-2. As such, the Gurumoorthy reference does not even disclose multiple resource sets much less the above-described claim features. For these reasons, it is clear that the Arndt reference and the Gurumoorthy reference, taken alone or in combination, fail to teach or suggest the above-recited features of independent claims 9 and 14. As such, Applicants respectfully assert that claims 9 and 14, as well as the claims that depend thereon, are patentable over these cited references.

Claim 3

As stated above, the Examiner rejected claim 3 as being unpatentable over the Arndt reference in view of the Smith reference. Applicants respectfully submit that claim 3 is allowable based on its dependency on claim 1, because the Smith reference does not cure the deficiencies described above with regard to the Arndt reference. For at least this reason, claim 3 is believed to be allowable over the cited references taken alone or in

conjunction with each other. Thus, Applicants respectfully request withdrawal of the rejection of claim 3.

Claims 5-7

As stated above, the Examiner rejected claims 5 and 7 as being unpatentable over the Arndt reference in view of the Kleinsorge reference. Applicants respectfully submit that claims 5 and 7 are allowable based on their dependency on claim 1, because the Kleinsorge reference does not cure the deficiencies described above with regard to the Arndt reference. For at least this reason, claims 5 and 7 are believed to be allowable over the cited references taken alone or in conjunction with each other. Thus, Applicants respectfully request withdrawal of the rejections of claims 5 and 7.

Claims 13 and 19

As stated above, the Examiner rejected claims 13 and 19 as being unpatentable over the Arndt reference and the Gurumoorthy reference in view of the Kleinsorge reference. Applicants respectfully submit that claims 13 and 19 are allowable based on their dependency on claims 9 and 14, because the Kleinsorge reference does not cure the deficiencies described above with regard to the Arndt reference or the Gurumoorthy reference. For at least these reason, claims 13 and 19 are believed to be allowable over the cited references taken alone or in conjunction with each other. Thus, Applicants respectfully request withdrawal of the rejections of claims 13 and 19

Claims 17 and 18

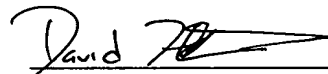
As stated above, the Examiner rejected claims 17 and 18 as being unpatentable over the Arndt reference and the Gurumoorthy reference in view of the Smith reference. Applicants respectfully submit that claims 17 and 18 are allowable based on their dependency on claim 14, because the Smith reference does not cure the deficiencies described above with regard to the Arndt reference or the Gurumoorthy reference. For at least this reason, claims 17 and 18 are believed to be allowable over the cited references taken alone or in conjunction with each other. Thus, Applicants respectfully request withdrawal of the rejections of claims 17 and 18.

Conclusion

Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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